

Serial Number 09/981,611

REMARKS

1. Claims 24-26 stand rejected under 35 USC§112, first and second paragraphs.

Claim 24 has been amended to include an "SEAT" standard for ballistic effectiveness. Support for the amendment is found in the specification in Examples 12 (p. 35, line 28, and Table 4 on p. 37) and 13 (Table 5 on p. 39).

The term "SEAT" has been employed in a number of patents to describe ballistic effectiveness. The meaning and measurement of "SEAT" was defined as the specific energy absorption based on the total areal density of the composite in several United States Patents. See, e.g., USP's 4,820,568 (col.11, lines 37-40); 5,185,195 (col.19, note 6 of Table 2); 5,254,383 (col.1, lines 49-52); 5,376,426 (col.2, lines 3-70); 5,545,455 (col.1, lines 61-63); and 5,591,933 (col.1, lines 62-64). SEAT values were also acceptable in USP's 5,175,040 (Table 3) and 5,198,280 (Table 3).

It is therefore respectfully submitted that inclusion of the "SEAT" value in amended claim 24 provides a clear and definite standard of ballistic effectiveness whose meaning is well known to the man of ordinary skill in the art.

New claim 27 has been submitted to claim all that to which the inventor is entitled. Support for this claim is found in the specification in Tables 4 (p.37) and 5 (p.39). The term "V50" appearing in claim 27 has been defined and employed in many patents as an index of ballistic effectiveness and appears in the claims of USP's 5,749,140, 6,087,013 and 6,610,617 B2. It is submitted that the term "V50" is a clear and recognized standard of ballistic effectiveness whose meaning is well known to the man of ordinary skill in the art.

The claim amendments are made in order to comply with requirements of form or to place the claims in better form for consideration on appeal. Since no new matter has been added by these amendments, it is respectfully submitted that they should be entered.

2. Claims 24-26 stand rejected under 35 USC§103(a) as being unpatentable over Schirtzinger (USP 3,686,048, hereinafter the '048 patent). Applicants respectfully request the withdrawal of this rejection for the reason that amended claims 24-26 include limitations not found in the '048 patent, as follows:

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a) Ballistic Effectiveness

In contrast to the present invention, the '048 patent does not describe or suggest a ballistically effective composite. Amended claim 24 presents a rigorous standard for ballistic effectiveness (minimum SEAT value for a particular threat) well above that achieved in the prior art. In particular, see Tables 4 and 5 of the specification. The '048 patent does not suggest, nor inherently describe a material that could meet this standard for ballistic effectiveness.

b) Size of the matrix islands

In contrast to the present invention, the '048 patent provides no definite limitation on the size of the matrix islands. "Minute bridges" are mentioned at col.3, line 36, but no guidance is provided as to the meaning of this term. Examiner suggests that in view of the '048 patent, it would be obvious to select the proportions of resin through a process of routine experimentation suitable for the final use of the composite material. Applicants respectfully submit that a person seeking "high-impact resistant" (p.1, line 9) ballistically effective articles would take the '048 patent as a point of departure only with the impermissible use of hindsight.

3. In light of the foregoing amendment and remarks, it is submitted that the claims now of record, 24-26 and 27, are allowable and should be passed to issue. Applicants respectfully request the same. The Examiner is invited to call the undersigned attorney if there are any unresolved issues to discuss same.

Respectfully submitted,
GARY A. HARPELL ET AL.

By Virginia Sziget (Andrews)
Virginia Sziget (Andrews)
Applicants' Attorney
Reg. No. 29,039

Honeywell International Inc.
15801 Woods Edge Road
Colonial Heights, VA 23834
804-520-3651